

19



Europäisches Patentamt  
European Patent Office  
Office européen des brevets



11 Publication number:

**0 602 455 A3**

12

**EUROPEAN PATENT APPLICATION**

21 Application number: **93119355.1**

51 Int. Cl.<sup>6</sup>: **G01N 33/92**

22 Date of filing: **01.12.93**

30 Priority: **14.12.92 US 990592**

71 Applicant: **Bayer Corporation**  
**One Mellon Center**  
**500 Grant Street**  
**Pittsburgh, PA 15219-2502 (US)**

43 Date of publication of application:  
**22.06.94 Bulletin 94/25**

84 Designated Contracting States:  
**AT BE CH DE DK ES FR GB GR IE IT LI LU NL**  
**PT SE**

72 Inventor: **Hsu, Chen-Jung**  
**80 Random Farms Drive**  
**Chappaqua,**  
**New York 10514 (US)**  
Inventor: **Payne, Robert C.**  
**4241-2A Irish Hills Drive**  
**South Bend,**  
**Indiana 46614 (US)**  
Inventor: **Profitt, James A.**  
**1805 Barclay Place**  
**Goshen,**  
**Indiana 46526 (US)**

88 Date of deferred publication of the search report:  
**16.08.95 Bulletin 95/33**

74 Representative: **Dänner, Klaus et al**  
**Bayer AG**  
**Konzernzentrale RP**  
**Patente Konzern**  
**D-51368 Leverkusen (DE)**

54 **Method for the separation of high density lipoprotein from blood samples.**

57 Disclosed is a method for separating high density lipoproteins from blood serum or plasma. The method involves contacting the blood sample with an absorbant material comprising porous silica or silicate to adsorb the high density lipoprotein in preference to other lipoproteins in the blood sample. When combined with means for removing very low density lipoproteins and chylomicrons from the blood sample, the remaining low density lipoproteins can be measured directly.

**EP 0 602 455 A3**



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CLS)
X	EP-A-0 259 076 (I.D.L. INTERNATIONAL DIAGNOSTIC LABORATORIES LTD.) * page 3, line 1 - line 10 *	1	G01N33/92
A	---	9,10	
X	DATABASE WPI Week 8107, Derwent Publications Ltd., London, GB; AN 81-10885D & JP-A-55 159 158 (WAKO PURE CHEM IND KK) 12 December 1980 * abstract *	1	
D,X	US-A-5 141 872 (TAMIR) * the whole document *	1	
A	EP-A-0 141 343 (BOEHRINGER MANNHEIM GMBH) * abstract *	1,9	
A	EP-A-0 180 720 (INTERMEDICAT GMBH) * abstract *	10	
			TECHNICAL FIELDS SEARCHED (Int.Cl.5)
			G01N
-The present search report has been drawn up for all claims-			
Place of search		Date of completion of the search	Examiner
BERLIN		17 March 1995	CEDER O.
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			



**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing more than ten claims.

- All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claims:
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

**LACK OF UNITY OF INVENTION**

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions.

namely:

1. Claims 1-4,9(partly),10: A method to separate HDL from a blood sample using finely divided, porous silica or silicate particles.
2. Claims 5-8,9(partly): A method to separate VLDL and chylomicrons from a blood sample using a reagent system comprising a polyanion and a divalent cation.

- All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid.  
namely claims:
- None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims.

namely claims: 1-4, 9(partly),10